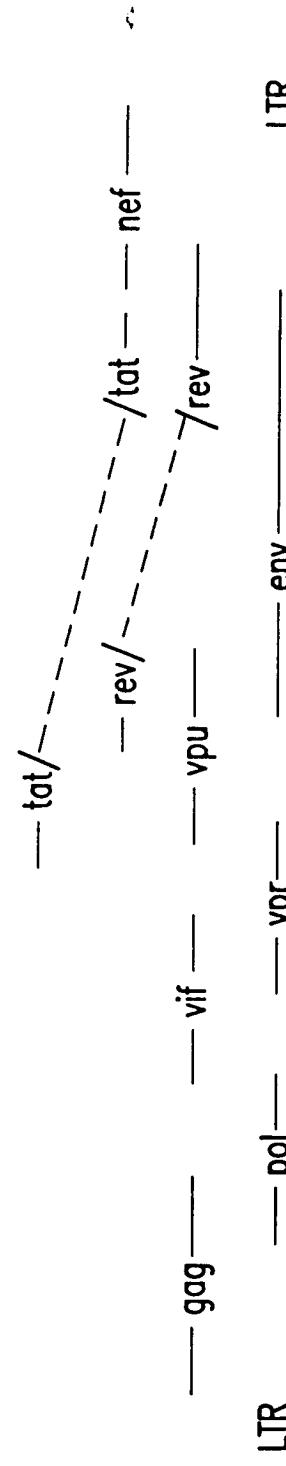


FIG. 1



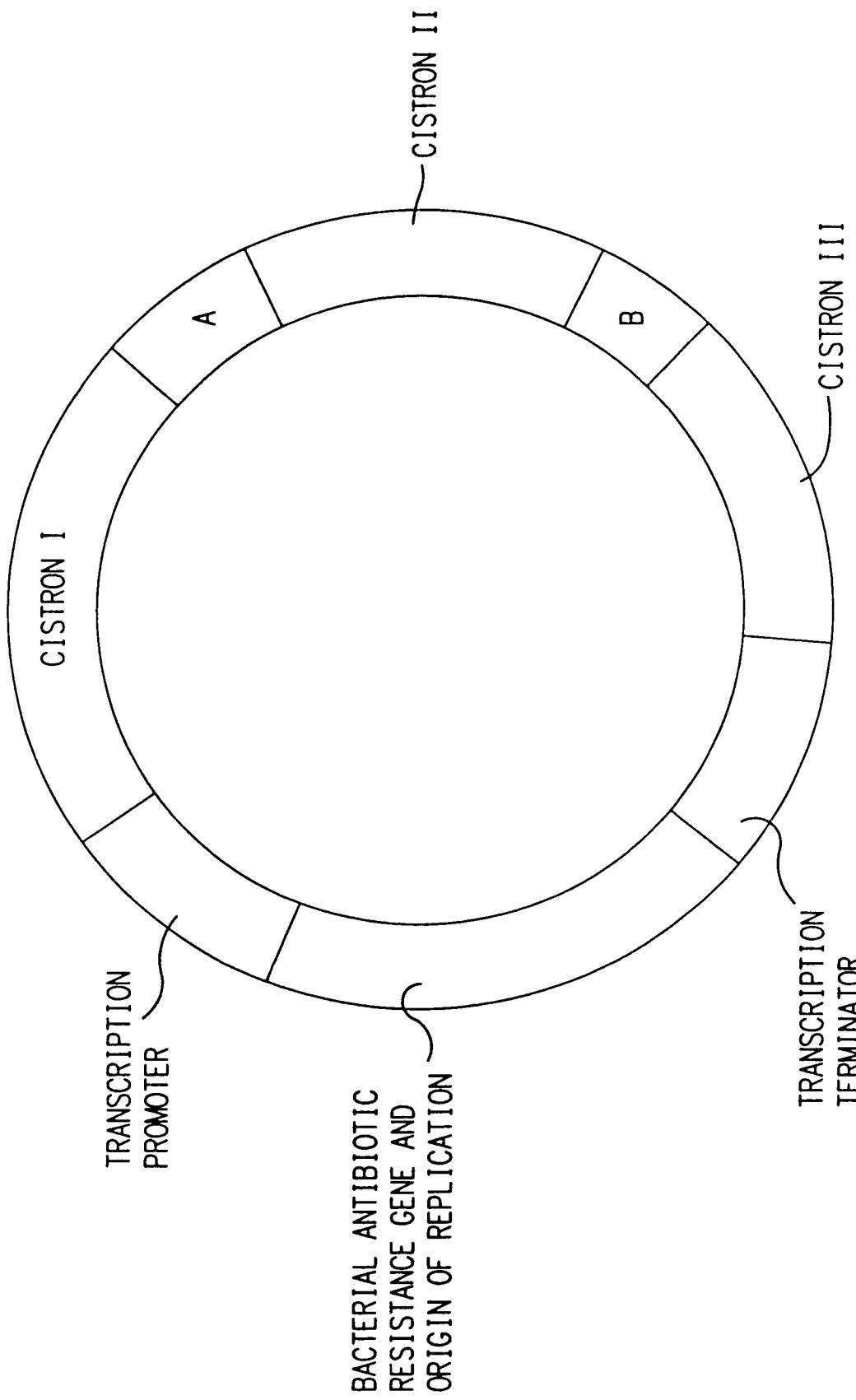
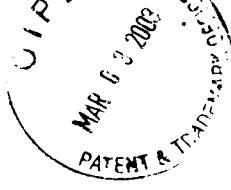


FIG. 2

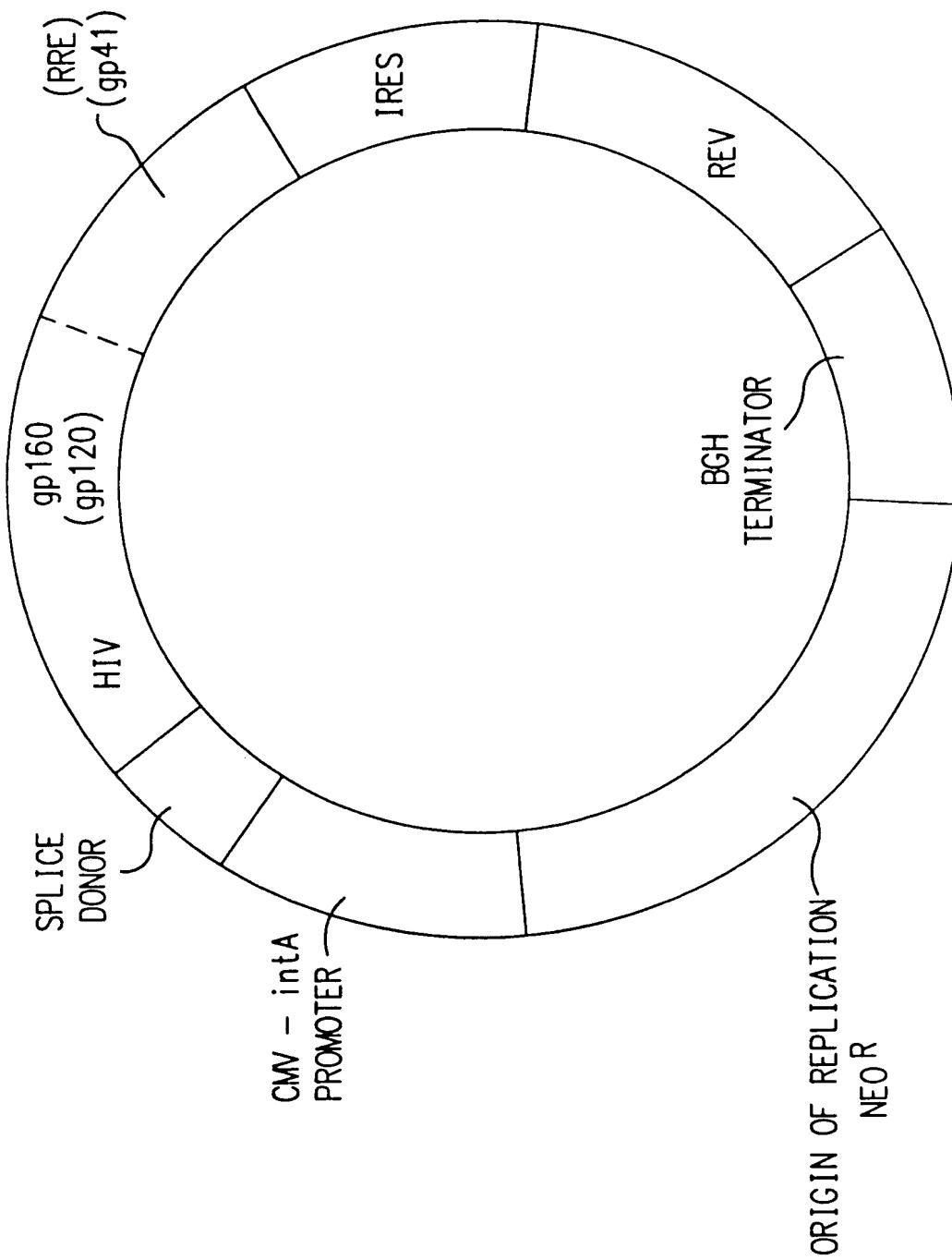
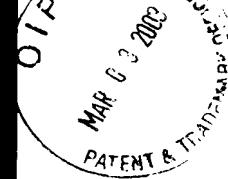
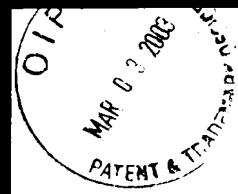
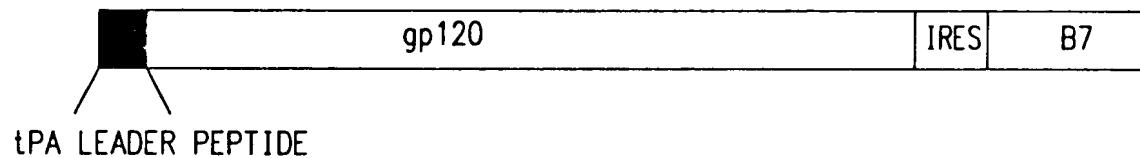


FIG. 3



tPA-gp120 (V1Jns-tPA-gp120)



gp160/rev DICISTRONIC CONSTRUCT
(V1 Jns-gp160/IRES/rev /SD)



HIV gag/rev DICISTRONIC CONSTRUCT SCHEMATIC

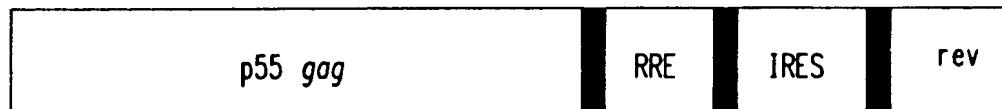


FIG.4

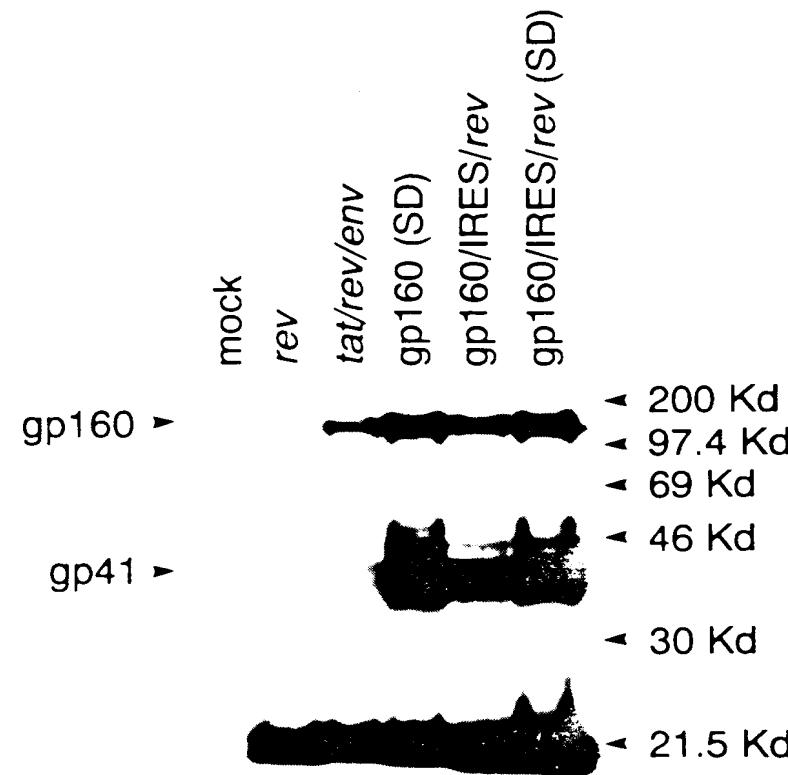
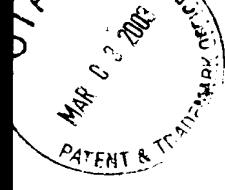


FIG. 5A

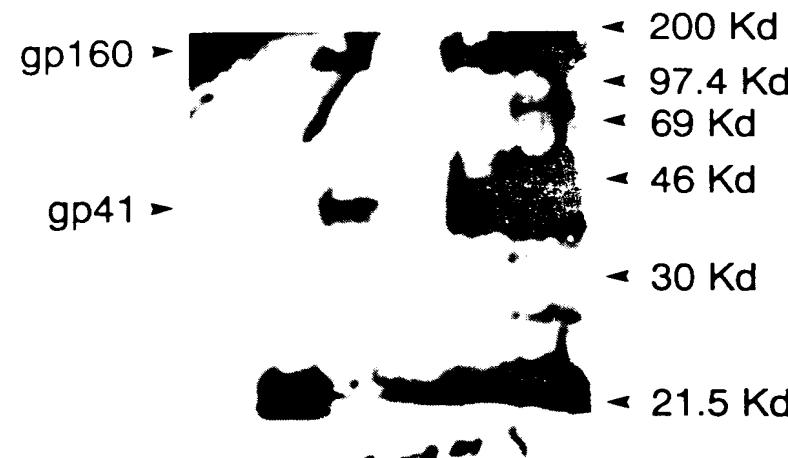
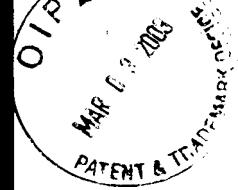
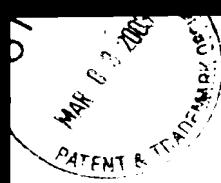


FIG. 5B



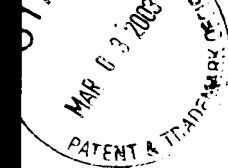
1 TCGCCGCTT CGCTGATGAC GCTGAAAACC TCTGACACAT GCAGCTCCCC
51 GAGACGGTCA CACCTTGTCT GTAACGGAT GCCGGGAGCA GACAAGCCCC
101 TCAGGGCCGG TCAGCGGGTG TTGGCGGGTG TCGGGGCTGG CTAACTATG
151 CGGCATCAGA CCAGATTGTA CTGAGACTGC ACCATATGCG GTGTGAAATA
201 CCGCACAGAT GCGTAAGGAG AAAATACCGC ATCAGATTGG CTATTGCCA
251 TTGCATACGT TGTATCCATA TCATAATATG TACATTATA TTGGCTCATG
301 TCCAACATTA CCGCCATGTT GACATTGATT ATTGACTAGT TATTAATAGT
351 AATCAATTAC GGGGTCAATTAA GTTCATAGCC CATATATCGA CTTCCCCTT
401 ACATAACTTA CGGTAAATGG CCCGCCCTGGC TGACCCCCCA ACCACCCCCG
451 CCCATTGACG TCAATAATGA CGTATGTTCC CATACTAACG CCAATAGGCA
501 CTTTCCATTG ACGTCAATGG GTGGAGTATT TACGGTAAAC TGCCCACCTG
551 GCAGTACATC AAGTCTATCA TATGCCAAGT ACGCCCCCTA TTGACGTCAA
601 TGACCGTAAA TGGCCCGCCT GGCATTATGC CCAGTACATG ACCTTATGGC
651 ACTTCCATAC TTGGCACTAC ATCTACCTAT TAGTCATCGC TATTACCATG
701 GTGATGCCGT TTTGGCACTA CATCAATGGG CCTGGATACC GGTTTGACTC
751 ACGGGGATT CCAAGTCTCC ACCCCATTGA CGTCAATGG AGTTTGTTTT
801 GGCACCAAAA TCAACGGGAC TTTCCAAAAT GTCGTAACAA CTCCGGCCCCA
851 TTGACCGAAA TGGCCGGTAG GCGTGTACCG TCGGACGTCT ATATAAGCAG
901 AGCTCGTTA CTGAACCGTC AGATCGCCTG GAGACGCCAT CCACCGCTGTT
951 TTGACCTCCA TAGAAGACAC CGGGACCGAT CCAGCCTCCG CGGCCGGGAA

FIG.6A



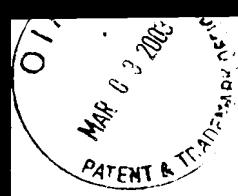
1001 CGGTGCATTG GAACGGGAT TCCCCGTGCC AAGAGTGACG TAACTACCC
1051 CTATAGAGTC TATAAGCCCCA CCCCCCTGGC TTCTTATGCA TGCTATACTG
1101 TTTTGGCTT GGGGTCTATA CACCCCCGCT TCCTCATGTT ATAGGTGATC
1151 GTATAGCTTA GCCTATAGGT GTGGGTTATT GACCATTATT GACCACTCCC
1201 CTATTGGTGA CGATACTTTC CATTACTAAT CCATAACATG GCTCTTGCC
1251 ACAACTCTCT TTATTGGCTA TATGCCAATA CACTGTCCCTT CAGAGACTGA
1301 CACGGACTCT GTATTTTAC AGGATGGGT CTCATTATT ATTTACAAAT
1351 TCACATATAC AACACCACCG TCCCCAGTGC CCCGAGTTT TATTAAACAT
1401 AACGTGGAT CTCCACCGA ATCTGGTA CGTGTCCGG ACATGGCCTC
1451 TTCTCCGGTA CGGGCGGAGC TTCTACATCC GAGCCCTGCT CCCATGCCCTC
1501 CAGCGACTCA TGGTCGCTCG CCACCTCCTT GCTCCTAACAA GTGGAGGCCA
1551 GACTTAGGCA CAGCACCGATG CCCACCACCA CCAGTGTGCC GCACAAGGCC
1601 GTGGCCGTAG GGTATGTGTC TGAAAATGAG CTCGGGGAGC GGGCTTGCAC
1651 CGCTGACCCA TTTGGAAGAC TTAAGGCAGC CCCAGAAGAA GATGCAGGCA
1701 GCTGACTTGT TGTGTTCTGA TAAGACTCAG AGGTAACTCC CGTTGGGTG
1751 CTGTTAACGG TGGAGGGCAG TGTAGTCTGA GCAGTACTCG TTGCTGCCGC
1801 GCGCCGCCACC AGACATAATA GCTGACAGAC TAACAGACTG TTCTTTCCA
1851 TGGCTCTTT CTGCAGTCAC CGTCCTTAG ATCTGCTGTG CCTTCTAGTT
1901 GCCAGCCATC TGTGTTTGC CCCTCCCCG TGCCTTCCTT GACCCCTGGAA
1951 GGTGCCACTC CCACTGTCTT TTCTTAATAA AATGAGGAAA TTGCATCGCA

FIG. 6B



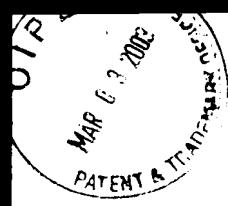
2001 TTGTCTGAGT AGGTGTCATT CTATTCTGGG CGGTGGGTC GGGCACCACA
2051 GCAAGGGGA GGATTGGAA GACAATAGCA GGCATGCTGG GGATGCGGTG
2101 GGCTCTATCG GTACCCAGGT CCTGAAGAAT TGACCCGGTT CCTCTGGGC
2151 CAGAAAGAAG CAGGCACATC CCCTTCTCTG TGACACACCC TGTCCACGCC
2201 CCTGGTCTT AGTCCACCC CCACTCATAG GACACTCATA GCTCAGGAGG
2251 GCTCCGCCTT CAATCCCACC CGCTAAAGTA CTGGACCGG TCTCTCCCTC
2301 CCTCATCAGC CCACCAAACC AAACCTAGCC TCCAAGACTG GGAAGAAATT
2351 AAAGCAAGAT AGGCTATTAA GTGCAGAGGG AGAGAAAATG CCTCCAACAT
2401 GTGAGGAAGT AATCAGAGAA ATCATAGAAT TTCTTCCGCT TCCTCGCTCA
2451 CTGACTCGCT GCGCTCGGTC GTTCCGCTGC CCCGAGCGGT ATCAGCTCAC
2501 TCAAAGCCGG TAATACGGTT ATCCACAGAA TCAGGGATA ACGGAGGAAA
2551 GAACATGTGA GCAAAAGCCC ACCAAAAGGC CAGGAACCGT AAAAAGCCCG
2601 CGTTGCTGGC GTTTTCCAT AGGCTCCGCC CCCCTGACGA GCATCACAAA
2651 AATCGACCGCT CAACTCAGAG GTGGCGAAC CCGACAGGAC TATAAAGATA
2701 CCAGGCCTT CCCCCCTGGAA CCTCCCTCGT GCCCTCTCCT GTTCCGACCC
2751 TGCCGCTTAC CGGATAACCTG TCCCCCTTTC TCCCTCGGG AAGCGTGGCC
2801 CTTTCTCAAT GCTCACCGCTG TAGGTATCTC AGTCGGTGT AGGTGTTCG
2851 CTCCAAGCTG GGCTGTGTCC ACGAACCCCC CGTTCACCCCC CACCGCTGGC
2901 CCTTATCCGG TAACTATCGT CTTGACTCCA ACCCGTAAG ACACGACTTA
2951 TCGCCCACTGG CAGCAGCCAC TCGTAACAGG ATTAGCAGAG CGAGGTATGT

FIG.6C



3001 AGCCGGTCT ACAGAGTTCT TGAAGTGGTG GCCTAACTAC GGCTACACTA
3051 GAAGGACAGT ATTTGGTATC TGGCCTCTCC TGAAGCCAGT TACCTTCGGA
3101 AAAAGAGTTG GTAGCTCTTG ATCCGGCAAA CAAACCACCG CTGGTAGCCG
3151 TCGTTTTTT GTTGCAAGC ACCAGATTAC GGGCACAAAA AAAGGATCTC
3201 AAGAACATCC TTGATCTT TCTACGGGT CTGACGCTCA GTGGAACGAA
3251 AACTCACGTT AAGGGATTTT GGTCATGAGA TTATCAAAAA GGATCTTCAC
3301 CTAGATCCTT TAAATTAAA AATGAAGTTT TAAATCAATC TAAACTATAT
3351 ATGACTAAC TGGTCTGAC AGTTACCAAT GCTTAATCAG TGAGGCACCT
3401 ATCTCACCGA TCTGTCTATT TCGTTCATCC ATAGTTGCCCT GACTCCCCGT
3451 CGTGTAGATA ACTACGATAAC GGGAGGGCTT ACCATCTGGC CCCAGTCCTG
3501 CAATGATACC GCGAGACCCA CGCTCACCGG CTCCAGATT ATTCAATA
3551 AACCAAGCCAG CGCGAAGGGC CGAGCCAGA AGTGGTCTCG CAACTTTATC
3601 CGCCTCCATC CACTCTATT ATTGGTCCCG GGAAGCTAGA GTAAGTAGTT
3651 CGCCACTTAA TAGTTGGCC AACGTTGTTG CCATTGCTAC AGGCATCGTG
3701 GTGTCACGCT CGTCCTTGG TATGGCTTCA TTCAGCTCCG GTTCCCAACG
3751 ATCAAGGCCA GTTACATGAT CCCCCATGTT GTGCAAAAAA GCGGTTAGCT
3801 CCTTCGGTCC TCCGATCGTT GTCAGAACTA AGTGGCCGC ACTGTTATCA
3851 CTCATGGTTA TGGCAGCACT GCATAATTCT CTTACTGTCA TGCCATCCGT
3901 AAGATGCTTT TCTGTACTG GTGACTACTC AACCAAGTCA TTCTGAGAAT
3951 ACTGTATGCCG GCGACCGAGT TGCTCTGCC CGGGCTCAAT ACGGGATAAT

FIG.6D



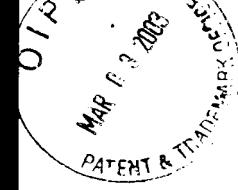
4001 ACCGGGCCAC ATACCAGAAC TTTAAACTG CTCATCATTG GAAAACGTT
4051 TTGGGGCGA AAACTCTCAA GGATCTTACC GCTGTTGAGA TCCAGTTCGA
4101 TGTAAACCCAC TCGTGCACCC AACTGATCTT CACCATCTT TACTTTCAAC
4151 AGCGTTTCTG GGTGAGCAAA AACAGGAAGG CAAAATGCCG CAAAAAAAGGG
4201 AATAAGGGCC ACACGGAAAT GTTGAATACT CATACTCTTC CTTTTCAAT
4251 ATTATTGAAG CATTATCAG GGTTATTGTC TCATGAGGG ATACATATT
4301 GAATGTATT AGAAAAATAA ACAAATAGGG GTTCCGGCA CATTCCCCG
4351 AAAAGTGCCA CCTGACGTCT AAGAAACCAT TATTATCATG ACATTAACCT
4401 ATAAAAATAG GCGTATCAGG AGGCCCCTTTC GTC

FIG.6E



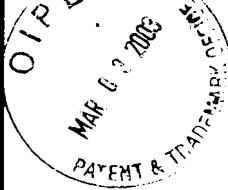
1 TCGCGCGTTT CGGTGATGAC GGTGAAAACC TCTGACACAT GCAGCTCCCC
51 GAGACGGTCA CAGCTTGCT GTAAACGGAT GCCGGGAGCA GACAAGCCCC
101 TCAGGGCCCG TCACCCGGTC TTGGCGGCTG TCGGGGCTGG CTTAACTATC
151 CGGCATCAGA GCAGATTGTA CTGAGAGTGC ACCATATGCG GTGTGAAATA
201 CCCCACAGAT CCCTAAGGAC AAAATACCGC ATCAGATTGG CTATTGGCCA
251 TTGCATACGT TGTATCCATA TCATAATATG TACATTATA TTGGCTCATG
301 TCCAACATTA CCGCCATGTT GACATTGATT ATTGACTAGT TATTAATAGT
351 AATCAATTAC GGGTCATTA GTTCATAGCC CATATATGGA GTTCCGGT
401 ACATAACTTA CGGTAATGG CCCGCCCTGGC TGACCGCCCA ACGACCCCCG
451 CCCATTGACC TCAATAATGA CGTATGTCC CATACTAACG CCAATAGGA
501 CTTTCCATTG ACCTCAATGG GTGGACTATT TACCGTAAAC TGCCCACCTG
551 GCACTACATC AACTGTATCA TATGCCAAGT ACGCCCCCTA TTGACGTCAA
601 TGACCGTAAA TCGCCCCCCT GCCATTATGC CCACTACATG ACCTTATGG
651 ACTTCCCTAC TTGGCACTAC ATCTACGTAT TAGTCATCGC TATTACCATG
701 GTGATGCCGT TTTCCAGTA CATCAATGG CGTGGATAGC GGTTTCACTC
751 ACGGGGATTG CCAACTCTCC ACCCCATTGA CGTCAATGGG AGTTTGTGTTT
801 GGCACCAAAA TCAACGGGAC TTTCCAAAT GTCGTAACAA CTCCGGCCCA
851 TTGACCCAAA TGGCCGGTAG CGGTGTACGG TGGGAGGTCT ATATAAGCAG
901 AGCTCGTTA GTGAACCGTC AGATCCCTG GAGACGCCAT CCACCGCTGTT
951 TTGACCTCCA TAGAAGACAC CGGGACCGAT CCAGCCTCCG CGGCCGGGAA

FIG.7A



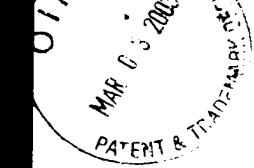
1001 CGGTCCATTG GAACGGGGAT TCCCCGTGCC AAGACTGACG TAAGTACCGC
1051 CTATAGACTC TATAGCCCCA CCCCCCTGCC TTCTTATCCA TGCTATACTG
1101 TTTTGGCTT GGGGTCTATA CACCCCCGCT TCCTCATGTT ATACGTGATG
1151 GTATAGCTTA GCCTATAGGT GTGGGTTATT GACCATTATT GACCACTCCC
1201 CTATTGGTGA CGATACTTTC CATTACTAAT CCATAACATG GCTCTTGCC
1251 ACAACTCTCT TTATTGGCTA TATGCCAATA CACTGTCCTT CAGAGACTGA
1301 CACGGACTCT GTATTTTAC AGGATGGGGT CTCATTATT ATTACAAAT
1351 TCACATATAAC AACACCACCG TCCCCAGTGC CCCAGTTT TATTAACAT
1401 AACGTGGGAT CTCCACGGCA ATCTGGGTA CGTGGTCCGG ACATGGGCTC
1451 TTCTCCGGTA GCGGCGGAGC TTCTACATCC GAGCCCTGCT CCCATGCCCTC
1501 CAGCGACTCA TGGTCGCTCG GCAGCTCCTT GCTCCTAACCA GTGGAGGCCA
1551 GACTTAGCCA CAGCACCGATG CCCACCAACCA CCAGTGTGCC GCACAAGCCC
1601 GTGGCGGTAG GGTATGTGTC TGAAAATGAG CTCGGGGAGC GGCCTTCCAC
1651 CGCTGACGCA TTTGGAAGAC TTAAGGCAGC GGCAAGAAGAA GATCCACGCCA
1701 GCTGAGTTGT TGTGTTCTGA TAAGACTCAG AGGTAACCTCC CGTTGGGTG
1751 CTGTTAACGG TGGAGGGCAG TGTAGTCTGA CCAGTACTCG TTGCTGCCCG
1801 GCGGCCACC AGACATAATA CCTGACAGAC TAACAGACTG TTCCCTTCCA
1851 TGGGTCTTTT CTGCAGTCAC CGTCCTTAG ATCTGCTGTC CCTTCTAGTT
1901 GCCAGCCATC TGGTGTGTC CCCTCCCCCG TGCCCTCCTT GACCCCTGGAA
1951 GGTGCCACTC CCACTGTCCT TTCTAACATAA AATGAGGAAA TTGCATGCCA
2001 TTGTCGAGT AGGTGTCATT CTATTCTGG CGGTGGGTG GGGCACCACA

FIG.7B



2051 GCAAGGGGGA GGATTGGGAA GACAATAGCA GGCATCCTCG CGATCCGTG
2101 GGCTCTATGG GTACCCAGGT GCTGAAGAAT TGACCCGGTT CCTCCTGGC
2151 CAGAAAAGAAG CAGGCACATC CCCTTCTCTG TGACACACCC TGTCCACGCC
2201 CCTGGTTCTT AGTTCCAGCC CCACTCATAG GACACTCATA GCTCAGGAGC
2251 GCTCCGCCTT CAATCCCACC CGCTAAAGTA CTTGGAGCGG TCTCTCCCTC
2301 CCTCATCAGC CCACCAAACC AAACCTAGCC TCCAAGAGTG GGAAGAAATT
2351 AACCAAGAT AGCCTATTAA GTGCAGAGGG AGAGAAAATG CCTCCAACAT
2401 GTGAGGAAGT AATGAGAGAA ATCATAGAAT TTCTTCCGCT TCCTCGCTCA
2451 CTGACTCGCT GCGCTCGTC GTTCGGCTGC GGGGAGCGGT ATCAGCTCAC
2501 TCAAAGGGGG TAATACCGTT ATCCACAGAA TCACGGGATA ACGCAGGAAA
2551 GAACATGTGA GCAAAAGGCC AGCAAAAGGC CAGGAACCGT AAAAAGGCCG
2601 CGTTGCTGGC GTTTTCCAT AGGCTCCGCC CCCCTGACGA GCATCACAAA
2651 AATCGACGCT CAACTCAGAG GTGGCGAAC CCGACAGGAC TATAAACATA
2701 CCAGGGCTTT CCCCCCTGGAA GCTCCCTCGT GCGCTCTCCT GTTCCGACCC
2751 TGCCGCTTAC CGGATACCTG TCCCCCTTTC TCCCTTCGGG AAGCGTGGCG
2801 CTTTCTCAAT GCTCACCGTG TAGGTATCTC AGTTGGTGT AGGTGTTCC
2851 CTCCAAGCTG GGCTGTGTGC ACGAACCCCC CGTTCAACCCC GACCGCTGCC
2901 CCTTATCCCG TAACTATCGT CTTGAGTCCA ACCCGGTAAG ACACGACTTA
2951 TCCCCACTGG CAGCAGCCAC TGGTAACAGG ATTAGCAGAG CGAGGTATGT
3001 AGGGCGTGCT ACAGAGTTCT TGAAGTGGTG GCCTAACTAC GGCTACACTA
3051 GAAGGACAGT ATTTGGTATC TGCGCTCTGC TGAAGCCACT TACCTTCGGA

FIG.7C



3101 AAAAGAGTTG GTAGCTCTTG ATCCGGCAAA CAAACCACCG CTGGTAGCGG
3151 TGGTTTTTTT GTTGCAGGC AGCAGATTAC GCGCAGAAAA AAAGGATCTC
3201 AAGAACATCC TTTGATCTTT TCTACGGGT CTGACCCCTA GTGGAACCAA
3251 AACTCACGTT AAGGGATTTT GGTCATGAGA TTATCAAAAA GGATCTTCAC
3301 CTAGATCCTT TTAAATTAAA AATGAACTT TAAATCAATC TAAACTATAT
3351 ATGACTAAAC TTGGTCTGAC AGTTACCAAT GCTTAATCAG TGAGGCACCT
3401 ATCTCAGCGA TCTGTCATT TCGTTCATCC ATAGTTCCCT GACTCCCCC
3451 GGGGGGGGGCG CTGAGGTCTG CCTCGTGAAC AAGGTGTTGC TGACTCATAAC
3501 CAGGCCCTGAA TCGCCCCATC ATCCAGCCAG AAAGTCAGGG AGCCACGGTT
3551 GATGAGAGCT TTGTTGAGG TGGACCAGTT GGTGATTTG AACTTTGCT
3601 TTGCCACGGA ACGGTCTGCG TTGTCGGAA GATGCGTGAT CTGATCCTTC
3651 AACTCACCAA AACTTCGATT TATTCAACAA AGCCGCCGTC CCGTCAAGTC
3701 ACCGTAATGC TCTGCCAGTG TTACAACCAA TTAACCAATT CTGATTACAA
3751 AAACTCATCG ACCATCAAAT GAAACTGCAA TTTATTCTATA TCAGGATTAT
3801 CAATACCATA TTTTGAAAAA AGCCGTTTCT GTAATGAAGG AGAAAACCTCA
3851 CCCAGGGCACT TCCATAGGAT GGCAAGATCC TGGTATCGGT CTGCCATTCC
3901 GACTCGTCCA ACATCAATAC AACCTATTAA TTTCCCTCG TCAAAAATAA
3951 CGTTATCAAC TGAGAAATCA CCATGAGTGA CGACTGAATC CGGTGAGAAT
4001 GGCAAAAGCT TATGCATTTC TTTCCAGACT TGTCAACAG GCCAGCCATT
4051 ACCGCTCGTCA TCAAAATCAC TCGCATCAAC CAAACCGTTA TTCATTCTG
4101 ATTGCCGCTG AGCGAGACGA AATACCCGAT CCCTGTTAAA AGGACAATTA

FIG.7D



4151 CAAACAGGAA TCGAATGCCA CGGGCGCAGG AACACTGCCA GCGCATCAAC
4201 AATATTTCA CCTGAATCAC GATATTCTTC TAATACCTGG AATGCTGTT
4251 TCCCGGGAT CGCACTGGTC AGTAACCATG CATCATCAGG ACTACGGATA
4301 AAATGCTTGA TGGTCGGAAC AGGCATAAAAT TCCGTAGCC AGTTTAGTCT
4351 GACCATCTCA TCTGTAACAT CATTGCCAAC GCTACCTTG CCATGTTCA
4401 GAAACAACTC TGGCGCATCC GGCTTCCCAC ACAATCGATA GATTGTCGCA
4451 CCTGATTGCC CGACATTATC GCGAGCCAT TTATACCCAT ATAAATCAGC
4501 ATCCATGTTG GAATTAATC GCGGCCTCGA GCAAGACGTT TCCC GTTGAA
4551 TATGGCTCAT AACACCCCTT GTATTACTGT TTATGTAAGC AGACAGTTT
4601 ATTGTTCATG ATGATATATT TTTATCTTGT GCAATGTAAC ATCAGAGATT
4651 TTGAGACACA ACGTGGCTT CCCCCCCCCC CCATTATTGA ACCATTATC
4701 AGGGTTATTG TCTCATGAGC GGATACATAT TTGAATGTAT TTAGAAAAAT
4751 AAACAAATAG GGTTCCGCG CACATTTCCC CGAAAAGTGC CACCTGACGT
4801 CTAAGAAACC ATTATTATCA TGACATTAAC CTATAAAAT AGGGGTATCA
4851 CGAGGCCCTT TCGTC

FIG.7E

MAILED 6/2/01
PATENT & TRADEMARK OFFICE

1 ATTGGCTATT GGCCATTGCA TACCTTGTAT CCATATCATA ATATGTACAT
51 TTATATTGGC TCATGTCCAA CATTACCGCC ATGTTGACAT TGATTATTGA
101 CTAGTTATTA ATACTAATCA ATTACGGGCT CATTAGTTCA TAGCCCATAT
151 ATGGAGTTCC GCGTTACATA ACTTACGGTA AATGCCCGGC CTGGCTGACC
201 GCCCAACGAC CCCCGCCCAT TGACGTCAAT AATGACGTAT GTTCCCATAG
251 TAACGCCAAT AGGGACTTTC CATTGACGTC AATGGTGGA GTATTTACGG
301 TAAACTGCCC ACTTGGCAGT ACATCAAGTG TATCATATGC CAAGTACCCC
351 CCCTATTGAC GTCAATGACG GTAAATGCC CGCCTGGCAT TATGCCCACT
401 ACATGACCTT ATGGGACTTT CCTACTTGGC AGTACATCTA CGTATTACTC
451 ATCGCTATTA CCATGGTGT GCGGTTTGG CAGTACATCA ATGGCGTGG
501 ATAGCCGTTT GACTCACGGG GATTCCAAG TCTCCACCCC ATTGACGTCA
551 ATGGGACTTT GTTTGGCAC CAAAATCAAC GGGACTTTCC AAAATGTCGT
601 AACAACTCCG CCCCATGAC GCAAATGCC CGTAGGCCGTG TACGGTGGGA
651 GGTCTATATA AGCAGAGCTC GTTTAGTGAA CCCTCAGATC GCCTGGAGAC
701 GCCATCCACG CTGTTTGAC CTCCATAGAA CACACCGGGA CCGATCCAGC
751 CTCCGGGGCC GGGAACGGTG CATTGAAACG CGGATTCCTT GTGCCAAGAC
801 TGACGTAAGT ACCGCCTATA GACTCTATAG CCCACCCCCC TTGGCTTCTT
851 ATGCATGCTA TACTGTTTT GGCTTGGGT CTATACACCC CCGCTTCCTC
901 ATGTTATAGG TGATGGTATA CCTTACCTA TAGGTGTGGG TTATTGACCA
951 TTATTGACCA CTCCCCATT GGTGACGATA CTTCCATT AATACTCATA
1001 ACATGGCTCT TTGCCACAAC TCTCTTATT GGCTATATGC CAATACACTG

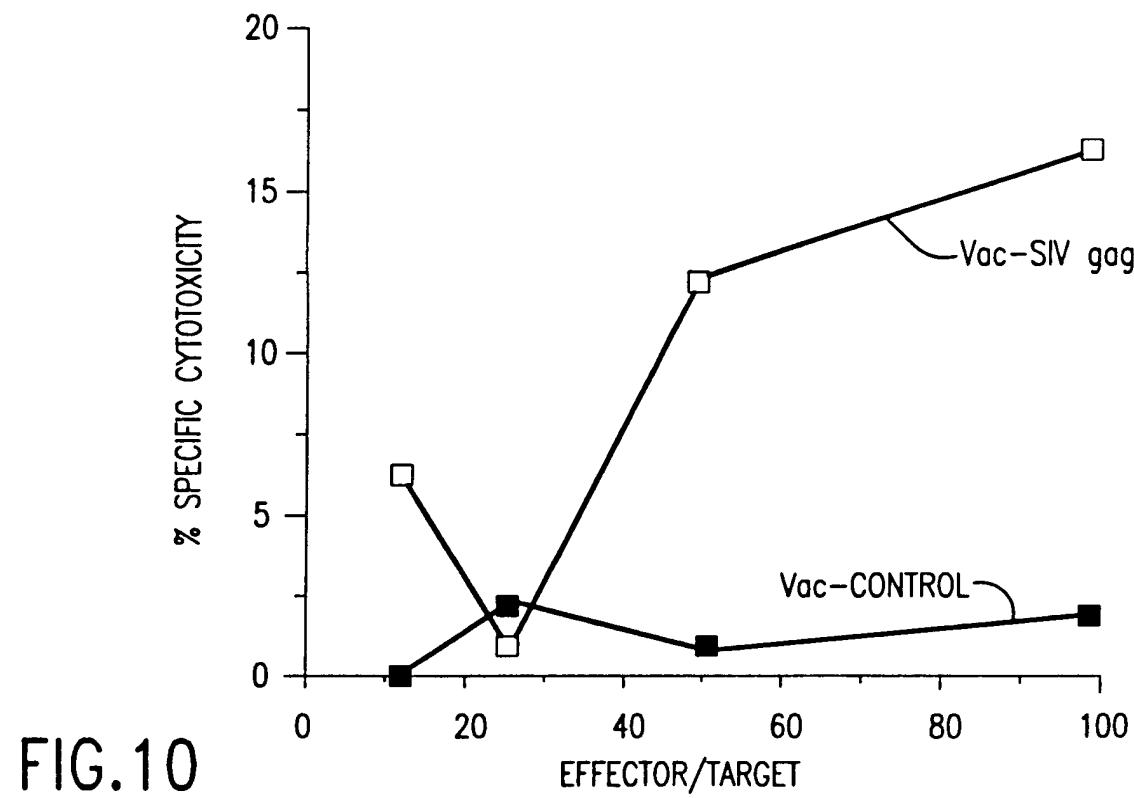
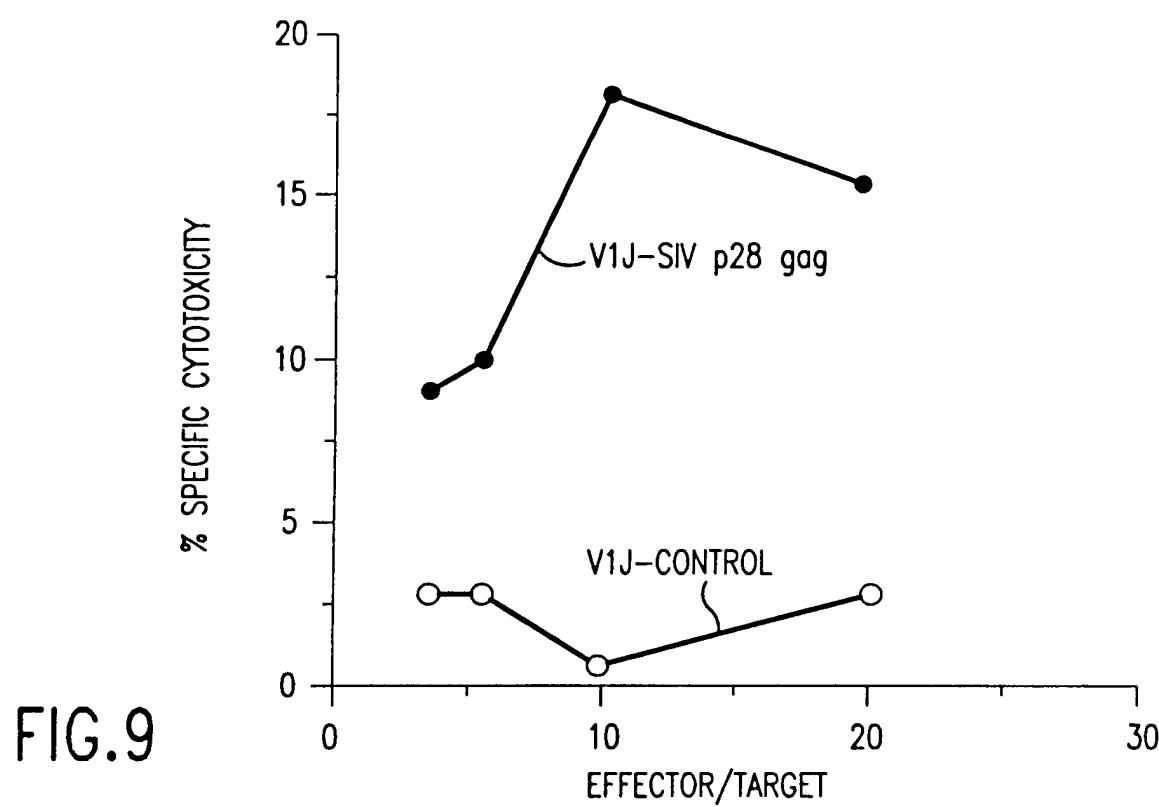
FIG.8A



1051 TCCTTCAGAG ACTCACACGG ACTCTGTATT TTTACAGGAT GGGGTCTCAT
1101 TTATTATTA CAAATTACA TATAAACAC CACCGTCCCC AGTGCCTCCA
1151 GTTTTATTA AACATAACGT GGGATCTCCA CGCGAATCTC GGGTACGTGT
1201 TCCGGACATG GCCTCTTCTC CGGTAGCGGC CGACCTTCTA CATCCGACCC
1251 CTGCTCCCAT GCCTCCAGCG ACTCATGGTC GCTCCGCAGC TCCTTCCTCC
1301 TAACACTGGA GCCCAGACTT AGGCACAGCA CGATGCCAC CACCACAGT
1351 GTGCCGACA AGGCCGTGGC GGTAGGGTAT GTGTCGAAA ATGAGCTCCG
1401 GGAGGGGGCT TGCACCGCTG ACGCATTGG AAGACTTAAG GCACGGGAG
1451 AAGAACATGC AGGCAGCTGA GTTGTGTGT TCTGATAAGA GTCAGAGGTA
1501 ACTCCCGTTG CGGTGCTGTT AACGGTGGAG CCCAGTCTAG TCTGACCACT
1551 ACTCGTTGCT GCCCGCGCGC CCACCAAGACA TAATACCTGA CAGACTAAC
1601 GACTGTTCTT TTCCATGGGT CTTTCTGCA GTCACCGTCC TTAGATCTG
1651 CTGTCCCTTC TAGTTGCCAG CCATCTGTTG TTTCCCCCTC CCCCCTGCCT
1701 TCCTTGACCC TGGAAGGTCC CACTCCCCT GTCCTTCTT AATAAAATGA
1751 CGAAATTGCA TCCGATTGTC TGACTACGTG TCATTCTATT CTGGGGGTG
1801 GGGTGGGCA GCACAGCAAG GGGGAGGATT GGGAAAGACAA TAGCAGGCAT
1851 CCTGGGATG CGGTGGGCTC TATGGTACCC CAGGTGCTGA AGAATTGACC
1901 CGGTTCCCTCC TGGCCAGAA AGAACCAAGG ACATCCCCTT CTCTGTGACA
1951 CACCCGTCTCC ACCCCCCCTGG TTCTTAGTTC CAGCCCCACT CATAGGACAC
2001 TCATAGCTCA GGAGGGCTCC GCCTCAATC CCACCCGCTA AAGTACTTGG
2051 ACCGGTCTCT CCCTCCCTCA TCAGCCCCACC AAACCAAACC TAGCCTCCAA
2101 GACTGGGAAG AAATTAACC AAGATAGGCT ATTAAGTCCA GAGGGAGAGA
2151 AAATGCCCTCC AACATGTGAG GAAGTAATGA GAGAAATCAT AGAATTG

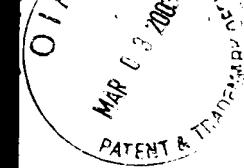
FIG.8B

O
MAR 6 1984
PATENT & TRADEMARK OFFICE



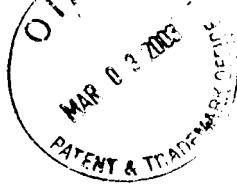
1 GATATTGG CTATTGCCA
251 TTGCATACTG TGTATCCATA TCATAATATG TACATTATA TTGGCTCATG
301 TCCAACATTA CGGCCATGTT GACATTGATT ATTGACTAGT TATTAATAGT
351 AATCAATTAC GGGGTCACTA GTTCATAGCC CATATATGGA GTTCCGCCTT
401 ACATAACTTA CGGTAAATGG CCCGCCTGGC TGACCGCCCA ACCACCCCCG
451 CCCATTGACG TCAATAATGA CGTATGTTCC CATACTAACG CCAATACGGA
501 CTTTCCATTG ACGTCAATGG GTGGAGTATT TACGGTAAAC TGCCCACCTG
551 GCAGTACATC AACTGTATCA TATGCCAAGT ACCCCCCCTA TTGACGTCAA
601 TGACGGTAAA TGCCCCGCTT GGCAATTATCC CCAGTACATG ACCTTATGG
651 ACTTCTTAC TTGGCAGTAC ATCTACGTAT TACTCATCCC TATTACCATG
701 GTGATGCCGT TTTGGCAGTA CATCAATGG CGTCGATACC CGTTTGACTC
751 ACGGGGATT CCAAGTCTCC ACCCCATTGA CGTCAATGG AGTTTGTGTT
801 GGCACCAAAA TCAACGGGAC TTTCCAAAAT GTCTAACAA CTCCGCCCA
851 TTGACGCCAA TGGGCCGTAG GCGTGTACGG TGGGAGGTCT ATATAAGCAG
901 AGCTCGTTA GTGAACCGTC AGATCGCTG GAGACGCCAT CCACCGCTTT
951 TTGACCTCCA TAGAAGACAC CGGGACCGAT CCAGCCTCCG CGGGCGGGAA
1001 CGGTGCATTG GAACGGGAT TCCCCGTGCC AACAGTGACG TAAGTACCGC
1051 CTATAGAGTC TATAGGCCA CCCCCTTGGC TTCTTATGCA TGCTATACTG
1101 TTTTGGCTT GGGGTCTATA CACCCCCGCT TCCTCATGTT ATAGGTGATG
1151 GTATAGCTTA GCCTATAGT GTGGGTTATT GACCATTATT GACCACTCCC
1201 CTATTGGTGA CGATACTTC CATTACTAAT CCATAACATG GCTCTTGCC

FIG.11A



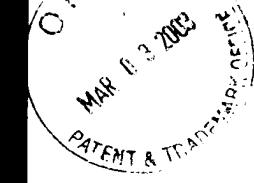
1251 ACAACTCTCT TTATTGGCTA TATGCCAATA CACTGTCCTT CAGAGACTGA
1301 CACGGACTCT GTATTTTAC AGGATGGGGT CTCATTATT ATTACAAAT
1351 TCACATATAC AACACCACCG TCCCCAGTGC CGGCAGTTT TATTAACAT
1401 AACGTGGGAT CTCCACGGCA ATCTCGGGTA CGTGTCCGG ACATGGGCTC
1451 TTCTCCGGTA GCGGCGGAGC TTCTACATCC GAGCCCTGCT CCCATGCCTC
1501 CAGGGACTCA TGGTCCCTCG GCAGCTCCTT GCTCCTAACCA GTGGAGGCCA
1551 GACTTAGGCA CAGCACCGATC CCCACCACCA CCAGTGTGCC GCACAAGGCC
1601 GTGGCGGTAG CGTATGTGTC TGAAAATGAG CTCGGGGAGC GGGCTTGCAC
1651 CGCTGACGCA TTTGGAACAC TTAAGGCAGC GGCAAGAAGAA GATGCAGGCA
1701 CCTGACTTGT TGTGTTCTGA TAAGACTCAC AGGTAACTCC CGTTCCGGTC
1751 CTGTTAACGG TGGAGGGCAG TGTAGTCTGA GCAGTACTCG TTGCTGCCGC
1801 CGCGGCCACC AGACATAATA GCTGACAGAC TAACAGACTG TTCCCTTCCA
1851 TGGGTCTTT CTGCACTCAC CGTCCTTAG ATCTGCTGTG CCTTCTAGTT
1901 GCCAGCCATC TGTGTTTGC CCCTCCCCCG TGCCTTCCTT GACCCTGGAA
1951 CGTGCCACTC CCACTGTCCT TTCCTAATAA AATGACGAAA TTGCATGCCA
2001 TTGTCTGAGT AGGTGTCATT CTATTCTGGC GGTCGGCTG GGGCAGCACA
2051 GCAAGGGGAA GGATTGGAA GACAATAGCA GGCAATGCTGG GGATGCCGTG
2101 CGCTCTATGC GTAC GGCGCGAGCGGCC GTACCCAGT GCTGAAGAAT
TGACCCGGTT CCTCGACCCCT AAAAAGGCCG
2601 CGTTGCTGCC GTTTTCCAT AGGCTCCGCC CCCCTGACGA GCATCACAAA
2651 AATCGACGCT CAAGTCAGAG GTGGCGAAC CCGACAGGAC TATAAACATA

FIG.11B



2701 CCAGGCCTT CCCCCGGAA GCTCCCTCGT GCGCTCTCCT GTTCCGACCC
2751 TGCCGCTTAC CGGATACCTG TCCGCCTTC TCCCTCGGG AACCGTGGGG
2801 CTTTCTCAAT GCTCACCGCTG TAGGTATCTC AGTCGGTGT AGGTCGTTG
2851 CTCCAAGCTG GGCTGTGTGC ACGAACCCCC CGTTCAGCCC GACCGCTGCC
2901 CCTTATCCGG TAATCATCGT CTTGACTCCA ACCCGTAAG ACACGACTTA
2951 TCGCCACTGG CAGCAGCCAC TCGTAACAGG ATTACGAGAG CGACGTATGT
3001 AGGCGGTGCT ACAGAGTTCT TGAAGTGGTG GCCTAACTAC GGCTACACTA
3051 GAAGGACAGT ATTTGGTATC TCGCTCTGC TGAAGCCAGT TACCTTCGA
3101 AAAAGAGTTG GTAGCTTTG ATCCGGAAA CAAACCACCG CTGGTAGCGG
3151 TCGTTTTTT GTTGCAAGC ACCAGATTAC GGGCAGAAAA AAAGGATCTC
3201 AAGAAGATCC TTGATCTT TCTACGTATCC CCTAATCC TCTGCCAGTC
TTACAACCAA TTAACCAATT CTGATTAGAA
3751 AAACTCATCG ACCATCAAAT GAAACTCCAA TTTATTATA TCAGGATTAT
3801 CAATACCATA TTTTGAAAA AGCCGTTCT GTATGAAGC AGAAAACTCA
3851 CCGAGGCAGT TCCATAGGAT GCCAAGATCC TCGTATCGGT CTGCGATTCC
3901 GACTCGTCCA ACATCAATAC AACCTATTAA TTTCCCTCG TCAAAAATAA
3951 GGTTATCAAG TGAGAAATCA CCATGAGTCA CGACTGAATC CGGTGACAAT
4001 GGCAAAAGCT TATCCATTTC TTTCCAGACT TGTTCAACAG GCCAGCCATT
4051 ACGCTCGTCA TCAAAATCAC TCGCATCAAC CAAACCGTA TTCATTGTC
4101 ATTGGCCCTG ACCGAGACCA AATACCCGAT CGCTGTTAAA AGGACAATTA
4151 CAAACAGGAA TCGAATGCAA CCGGCCAGG AACACTGCCA GCGCATCAAC

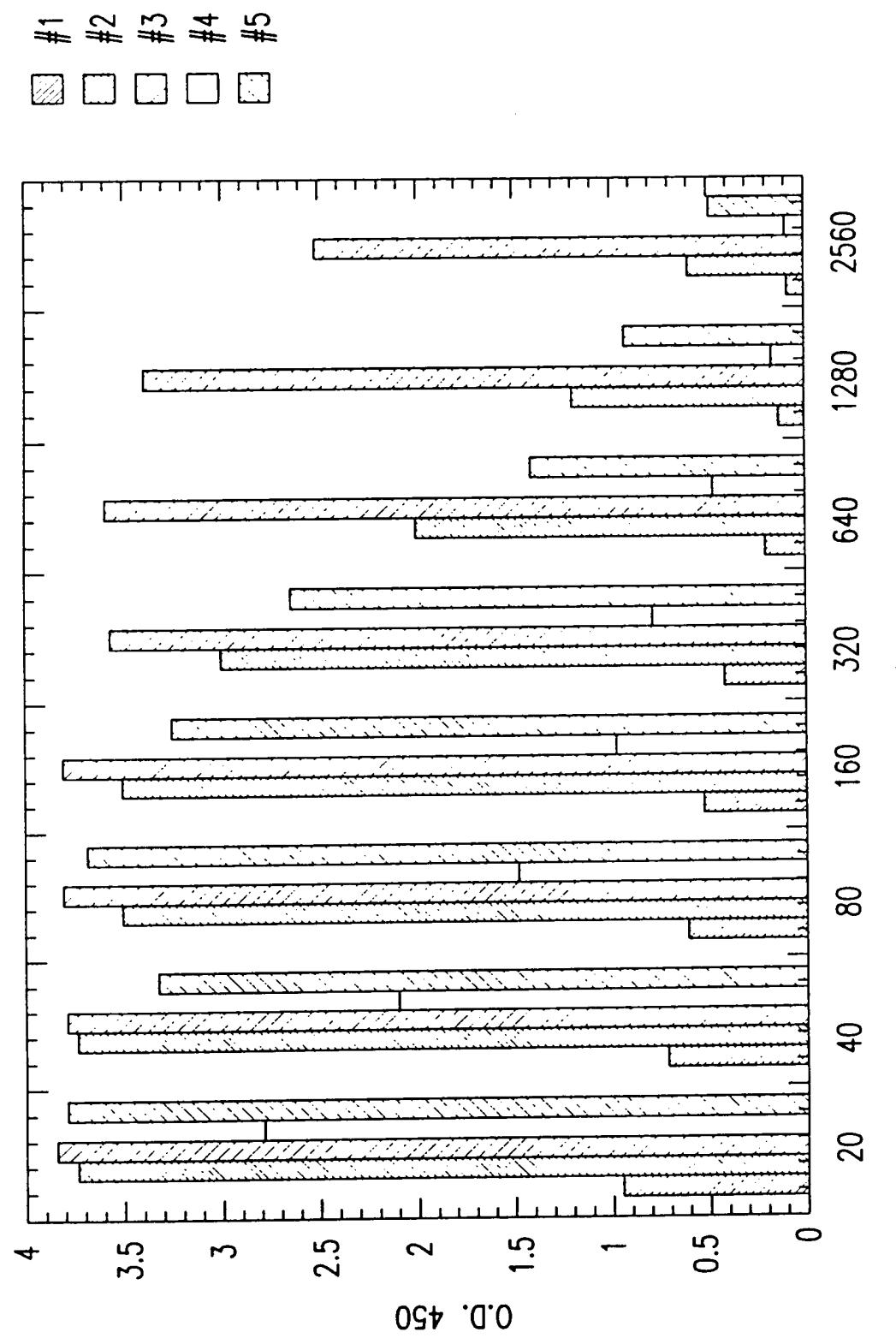
FIG.11C



4201 AATATTTCA CCTGAATCAG GATATTCTTC TAATACCTGG AATGCTGTT
4251 TCCCCGGCAT CGCAGTGGTG AGTAACCATG CATCATCAGG AGTACCGATA
4301 AAATGCTTGA TGGTCGGAAG AGGCATAAAAT TCCGTCAGCC AGTTTAGTCT
4351 GACCACATCTCA TCTGTAACAT CATTGGCAAC GCTACCTTG CCATGTTCA
4401 GAAACAACTC TGGCGCATCG GGCTTCCCAC ACAATCGATA GATTGTCGCA
4451 CCTGATTGCC CGACATTATC GCGAGCCCAT TTATACCCAT ATAAATCAGC
4501 ATCCATGTTG GAATTAAATC GCGGCCTCGA GCAAGACGTT TCCC GTTGAA
4551 TATGGCTCAT AACACCCCTT GTATTACTGT TTATGTAAGC AGACAGTTT
4601 ATTGTTCATG ATGATATATT TTTATCTTGT GCAATGTAAC ATCAGAGATT
4651 TTGAGACACA ACGTGGCTTT CC

FIG.11D

MAH 6 2003
PATENT & TRADEMARK OFFICE



MAR 6 2002
PATENT & TRADEMARK OFFICE

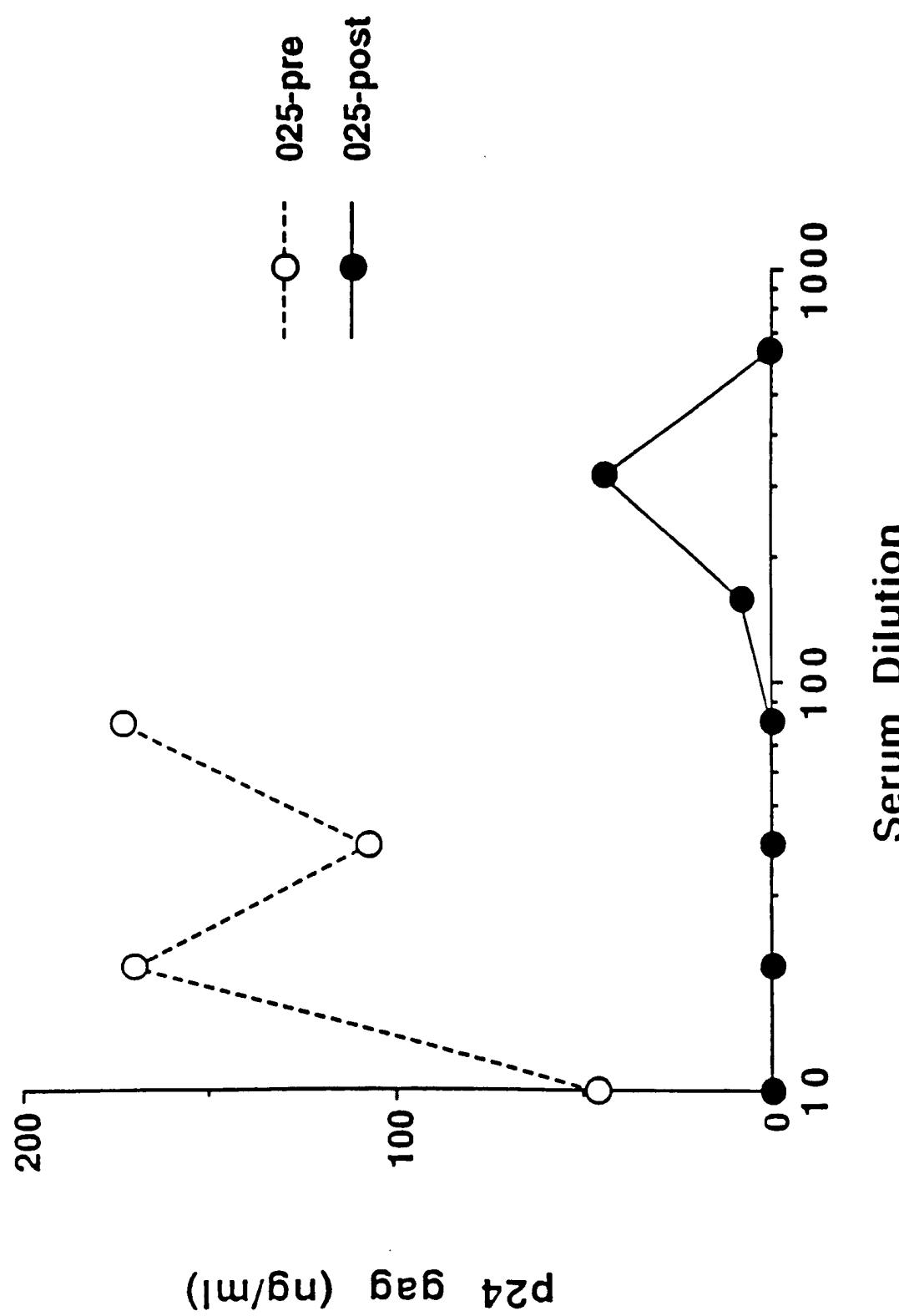


FIG. 13A

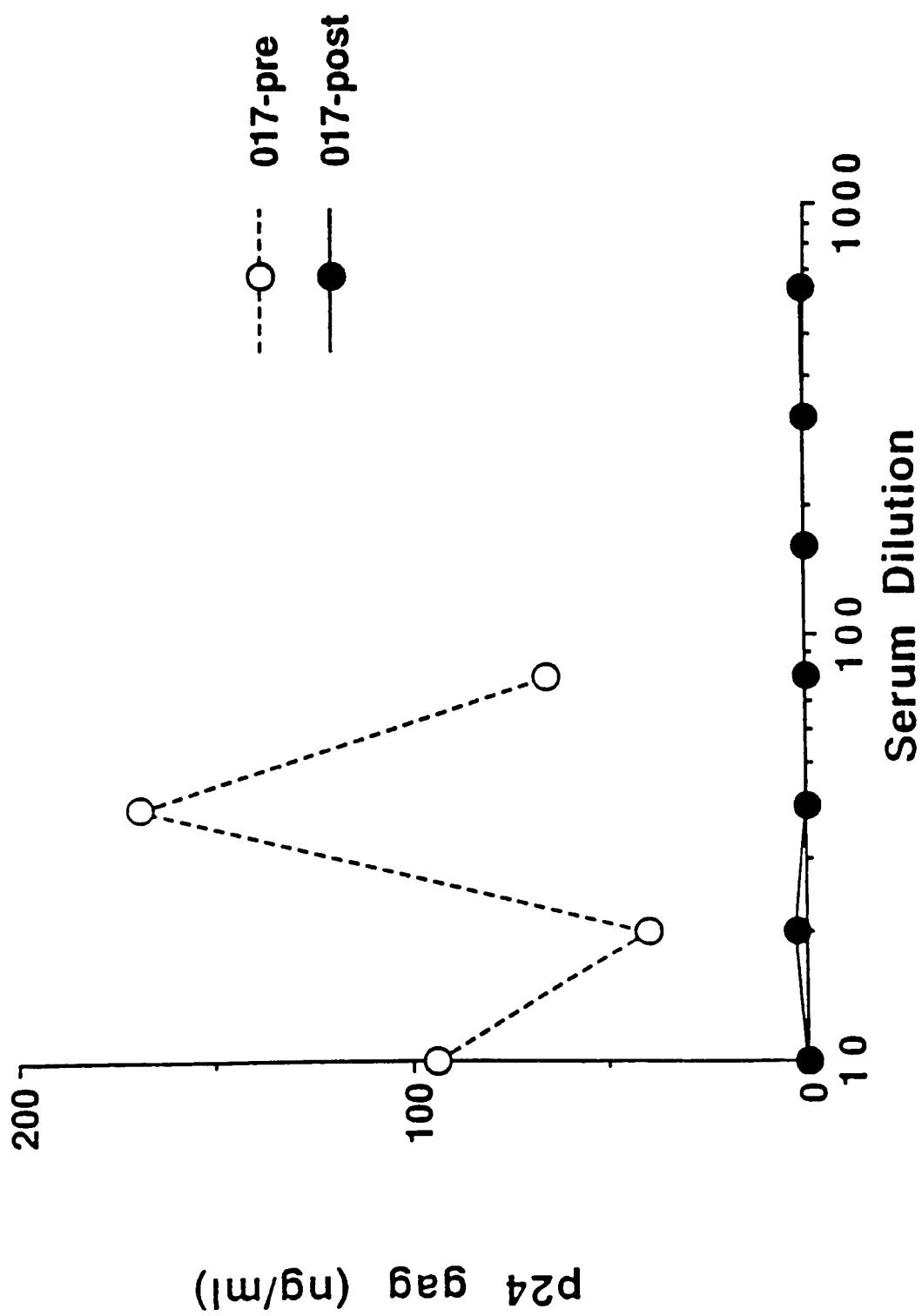
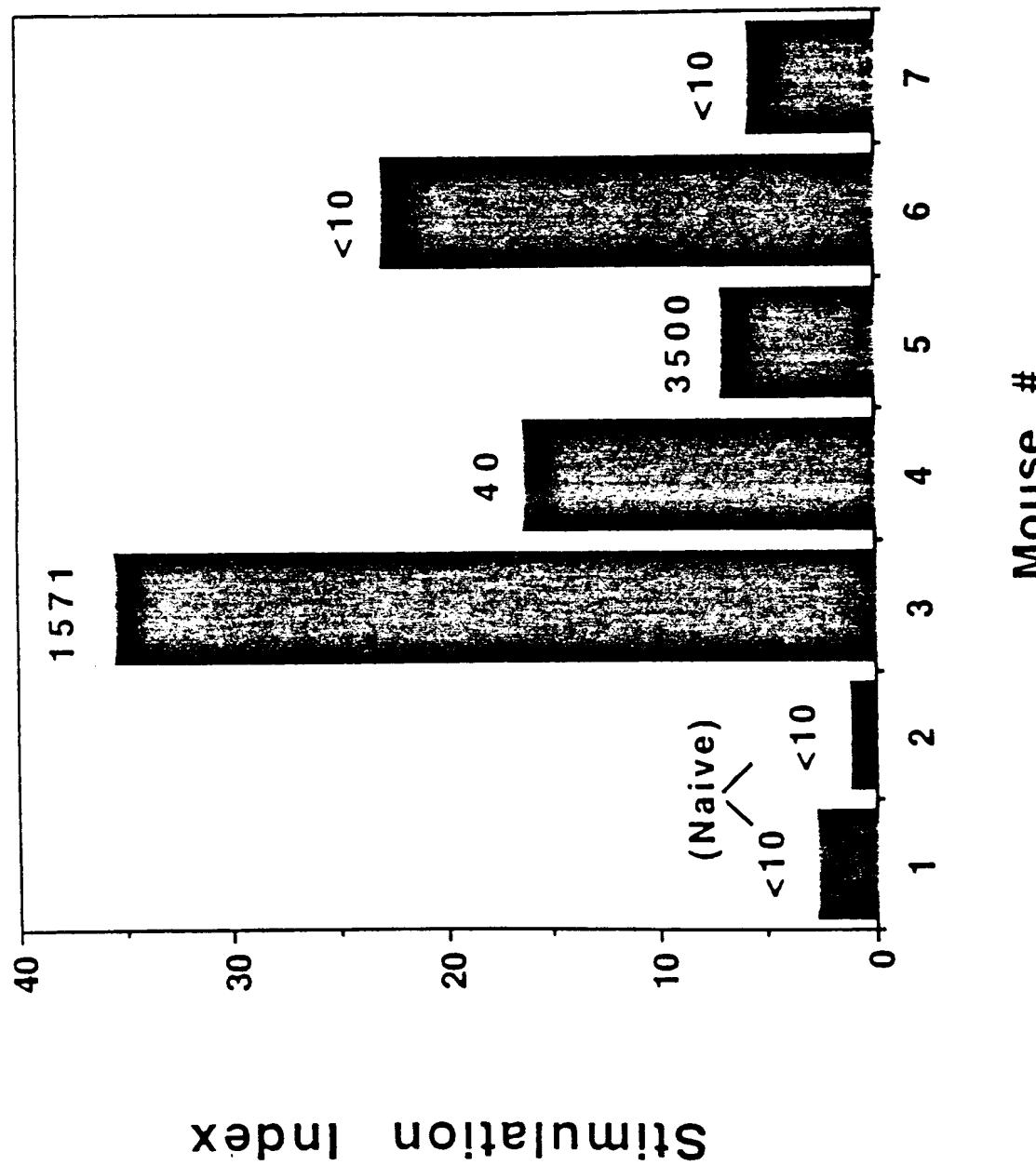


FIG. 13B

FIG. 14



OI
MAR 6 2005
PATENT & TRADEMARK OFFICE

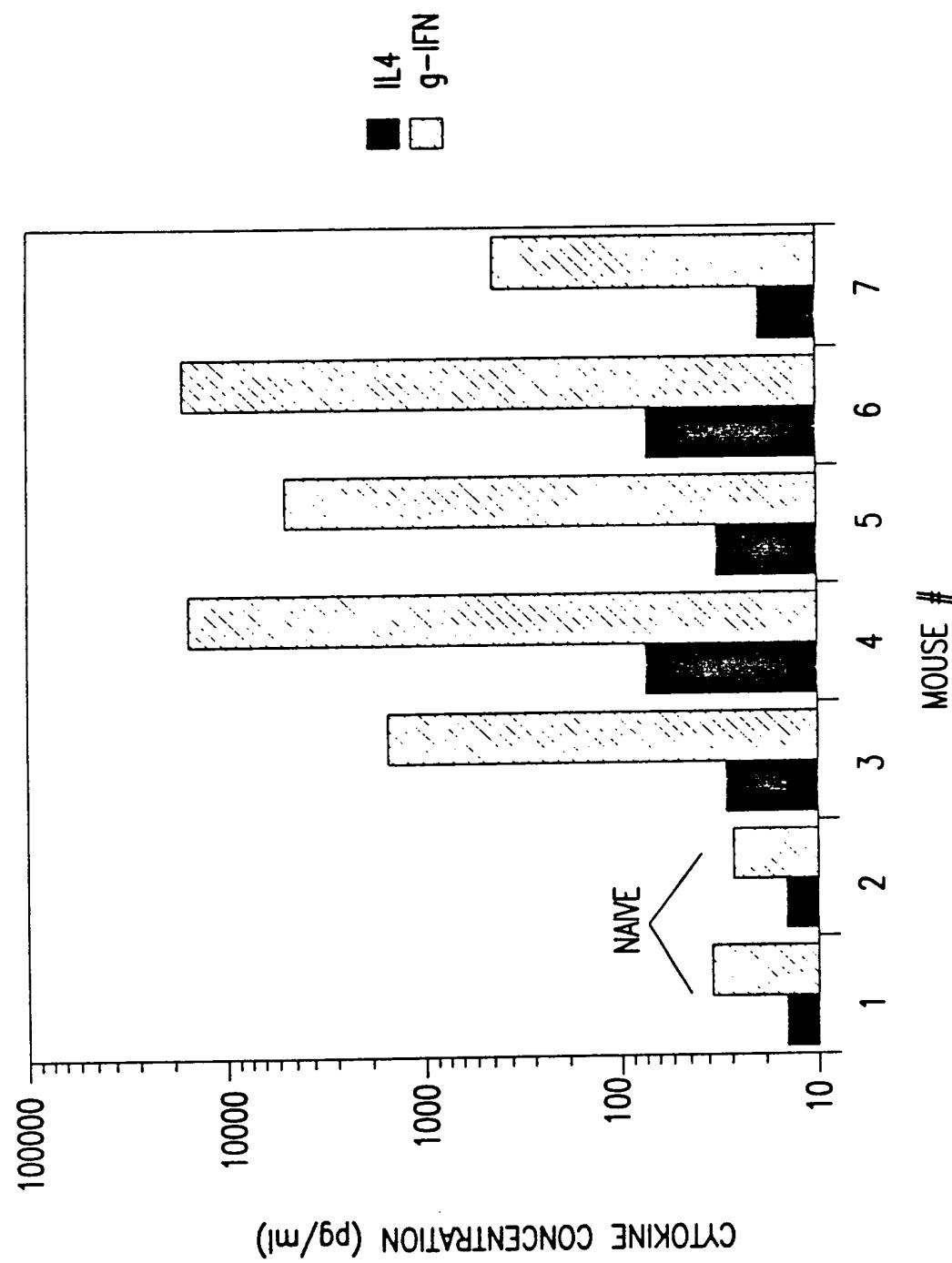


FIG. 15

O 12
MAP 03 2003
PATENT & TRADEMARK OFFICE

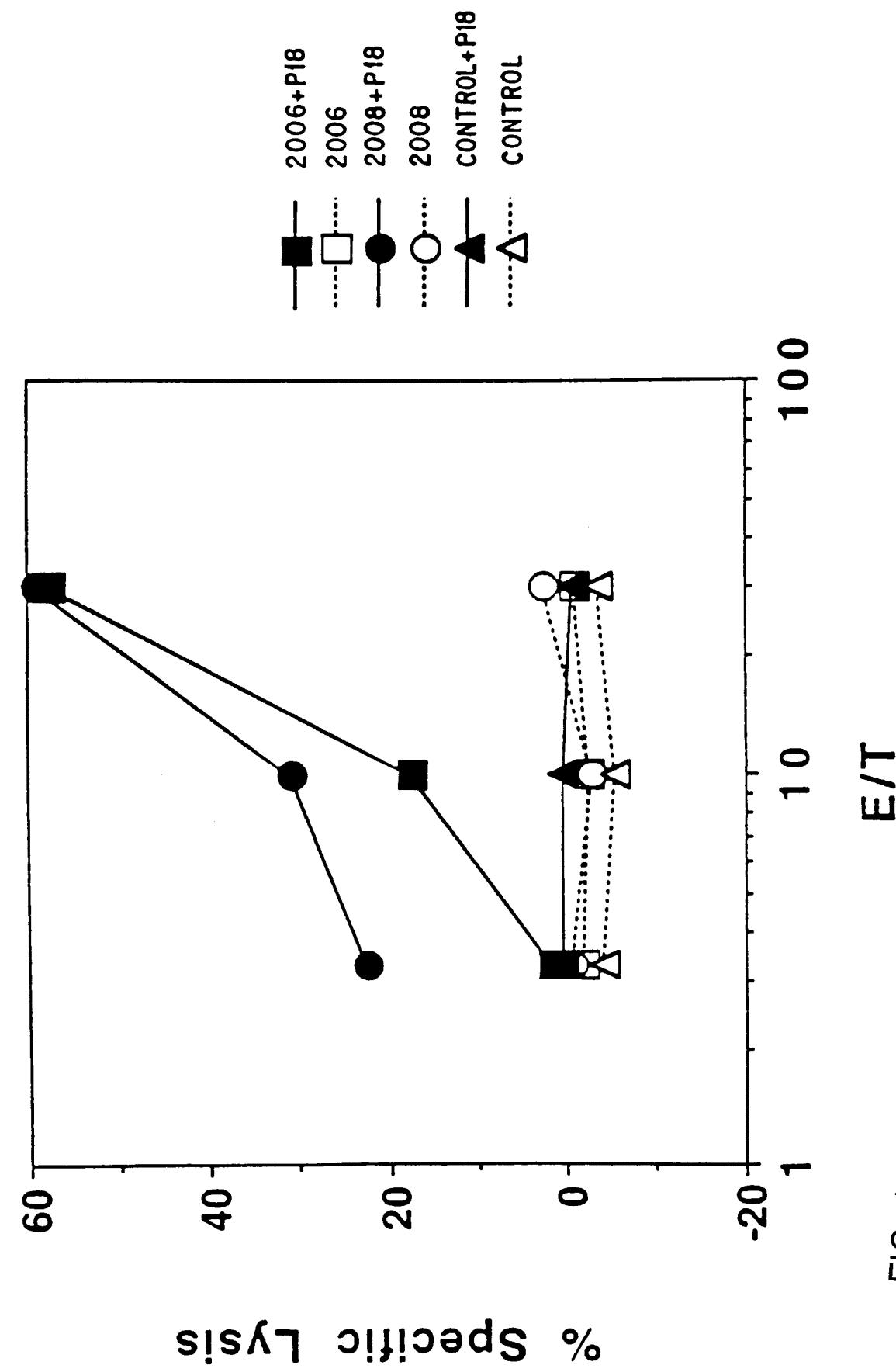


FIG. 16

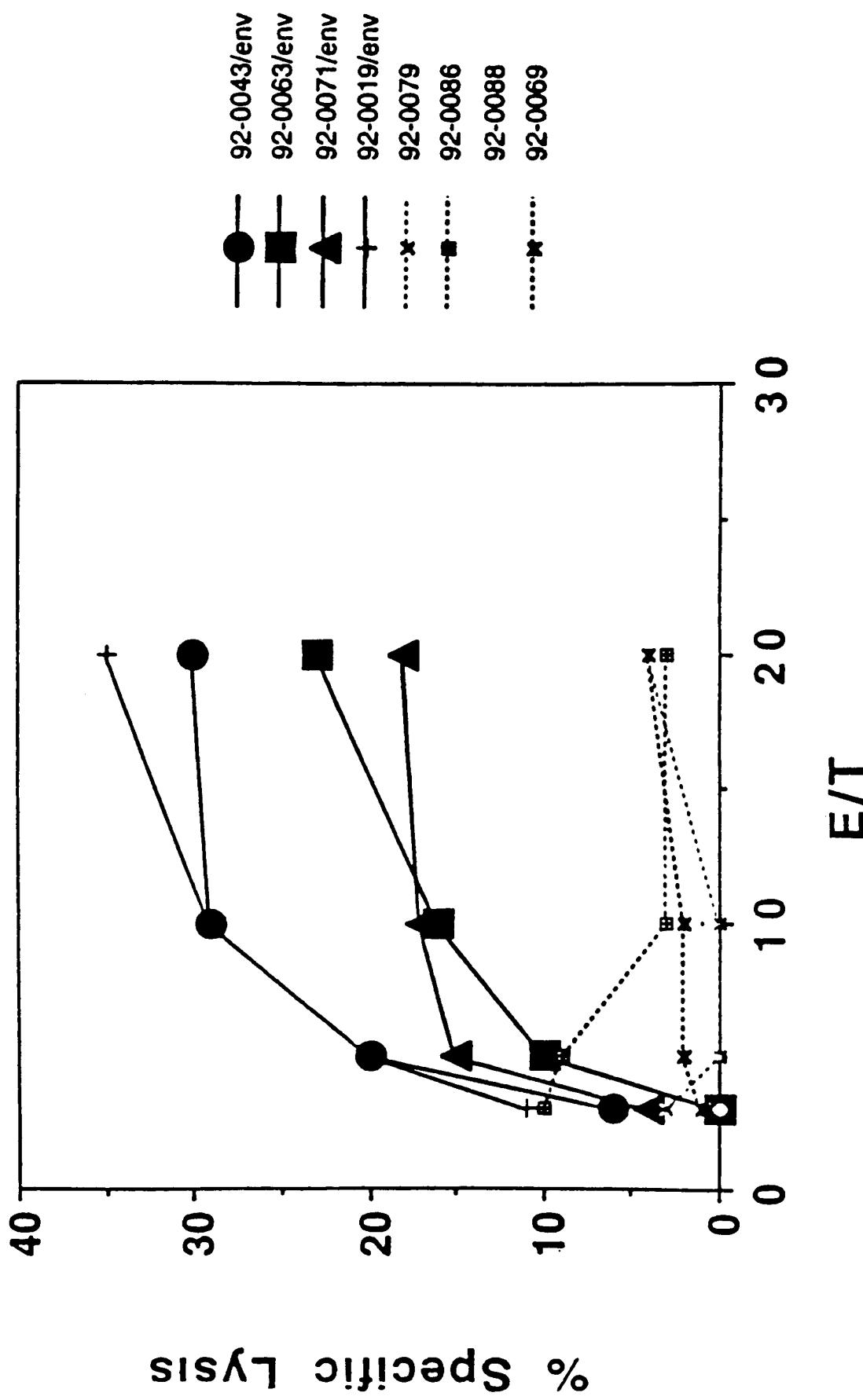
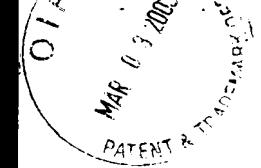


FIG. 17